Alex Rattigan

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PROFILE

Automotive electrical engineer with experience in multiple electronics-related roles, projects, and programming languages including electrical integration and testing. Currently an Electrical Engineer at Lotus Cars with time spent in several departments including Body Electronics Engineering and Safety Electronics. Gained a first-class Bachelor of Engineering Degree in Computer Systems Engineering with Honours from the University of East Anglia in 2022.

EXPERIENCE

Electrical Engineer (Body Electrical & Safety Electronics) - Lotus Cars

lotuscars.com • January 2024 - Now

- Involved in wide range of roles in electrical system engineering including defining requirements, **electrical module and harness design**, assembly, and testing, working with suppliers, writing documentation and processes, releasing of drawings and CAD data, and **ensuring compliance** to national/international regulations and internal and third-party client standards.
- Owned significant modules including body controllers, and contributed to other parts across BEV, HEV, and ICE vehicles including fault-finding/repairs for my own and other departments.
- Deployed and supported **instrumentation** systems for both short- and long-term use, capturing a range of analogue and digital signals alongside logging communication networks.
- Managed day-to-day tasks and activities of graduate engineers and apprentices.

Graduate Scheme - Lotus Cars

lotuscars.com • September 2022 - December 2023

- Worked in a selection of departments including IT, EV software, and automotive body electrical **engineering, integration, and testing**. While with electrical, completed several projects including developing a software reflashing process saving the business over £30,000.
- Completed a level 3 apprenticeship entitled the Data-Driven Professional Programme, allowing me to interpret complex data, make informed decisions to help the success of the business, and **present technical data** to a range of audiences from peers to non-technical stakeholders.

Associate Tutor - University of East Anglia

uea.ac.uk • October 2021 - May 2022

- Provided lab support for university web development and networking students including answering questions, guiding problem solving, and supporting other tutors as needed.

Live Audio and AV Lead Technician - The Mick Jagger Centre

themickjaggercentre.com • September 2015 - May 2019

- Planned, set-up, and ran live sound and AV for a variety of types of events including concerts, plays, talent shows, awards ceremonies, and corporate events.
- **Organised communication and planning** with event managers and other technicians to ensure all sound and AV needs were met.

Computer Support Engineer - NSM IT Services

nsmit.biz • Summer 2017

- Provided first-level remote support over the phone and via web messaging to private and commercial end users.
- Attended client sites to provide on-site support with hardware issues and perform new installations.

Other Personal Projects

alexrattigan.co.uk

- Completed multiple electronics projects including building, modifying, and calibrating a 3D printer, rebuilding and upgrading sports timing equipment for a local club, small projects centred around Raspberry Pi and Arduino, and hosting a personal website using WordPress and virtualised servers.

SKILLS

- Experience with electrical systems projects throughout their lifecycle.
- Experience with automotive networks such as CAN, FlexRay, and LIN, and **test/interface/instrumentation tools** including those from Vector and Softing.
- Over ten years' experience with Java.
- Knowledge of other programming languages including C, C#, F#, JavaScript, and MATLAB/Simulink.
- Project planning.
- **Working independently and with others** to achieve goals, including team leadership.
- Use of GitHub/DevOps version control systems.
- Use of project management and issue tracking systems.

EDUCATION

Computer Systems Engineering B.Eng. - University of East Anglia

July 2022

- Studied a range of hardware and software focused modules, becoming familiar with a range of programming languages including Java and C#, and physical **circuit design, assembly, and testing**.
- Graduated first-class in July 2022 with a final score of 83%, winning performance prizes from The Chartered Institute for IT and The Institute of Engineering and Technology.

International Baccalaureate - Dartford Grammar School

May 2019

- 38/45 points in the International Baccalaureate, including 7/7 in both higher-level Computer Science and Physics, and a computer hardware related Extended Essay.

PERSONAL ACTIVITIES

- Worked on car wiring harnesses to repair crash damage, and upgrade audio and lighting.
- Built and repaired 3D printers, including complete electronics replacements and upgrades.
- Designing a video switching system for a classic Nintendo collection and display.
- Various other small electronics projects centred around off-the-shelf microcontrollers.
- Hosted work experience students at Lotus Cars and attended careers events promoting engineering and the wide range of opportunities within.
- Lead the student tech team at Dartford Grammar School, helping to run school events and teach younger students how to operate the live sound and AV equipment.